
Group of Governmental Experts of the High Contracting Parties to the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects

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Examination of various dimensions of emerging technologies in the area of lethal autonomous weapons systems, in the context of the objectives and purposes of the Convention

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Submitted by the Netherlands

1. The Netherlands welcomes the ongoing deliberations on lethal autonomous weapon systems (LAWS) within the Convention on Certain Conventional Weapons (CCW) and believes it is of utmost importance to further deepen our understanding of this complex and multifaceted topic. The Netherlands hopes that the progress made during the three previous Expert Meetings will provide a further basis for structured discussions within the Group of Governmental Experts (GGE) on LAWS. In that respect the Netherlands would like to contribute to the discussions by submitting this working paper. In summary the Netherlands is of the opinion that further attention and special focus should be paid to:
2. The establishment of *working* definitions to facilitate the debate. These definitions should in no way prejudge the outcome of the discussion. Their only purpose would be to reduce confusion through differences in interpretation.
3. Further discussions of the concept of meaningful human control, which is required in the deployment of autonomous weapon systems.
4. The unanimous conclusion by the High Contracting Parties that all weapon systems, including LAWS, and their deployment in armed conflict, must comply with the requirements set by international law.

Working definition for autonomous weapon systems

5. There is as of yet no internationally agreed definition of an autonomous weapon system. This in itself is not problematic. However, it has been clear from the international debate that using different definitions leads to confusion and misunderstanding. The Netherlands therefore supports the idea of introducing *working* definitions to facilitate the debate. These definitions should under no circumstance prejudge the course or the outcome of the discussion. The Netherlands proposes the following working definition for an autonomous weapon system: “A *weapon that, without human intervention, selects and engages targets matching certain predefined criteria, following a human decision to deploy the weapon on the understanding that an attack, once launched, cannot be stopped by human intervention.*”



Concept of meaningful human control

6. Although humans, in the case of autonomous weapons under meaningful human control, do not decide upon an individual attack on a specific target, they do play a prominent role in:

- (a) programming the characteristics of the targets that are to be engaged,
- (b) the consideration of aspects such as target selection, weapon selection and implementation planning (time and space), an assessment of potential collateral damage,
- (c) the decision to deploy the weapon, and
- (d) the Battle Damage Assessment (BDA) after the attack, in which commanders can be held accountable for the effects of ‘their’ LAWS.

7. Under these circumstances, humans are involved in the ‘wider loop’ of the decision-making process. This means that humans continue to play a crucial role in the wider targeting process and exercise meaningful human control.

8. The concept of meaningful human control does not require immediate new or additional legislation, as the concept should be regarded as a standard deriving from existing legislation and practices (such as the targeting process). In this respect, autonomous weapon systems do not give reason to additional ethical issues compared to other weapon systems as long as meaningful human control – within the wider loop – is exercised.

9. However, in the Netherlands’ view it would be beneficial to further study and discuss the concept of meaningful human control. This could lead to the formulation of an interpretative guide, clarifying, by e.g. best practices, the current legal landscape with regard to the deployment of autonomous weapons under meaningful human control as well as the role of meaningful human control in the Article 36 Procedure.

Fully autonomous weapon system, without meaningful human control

10. *Fully* autonomous weapons systems, *without* the possibility of meaningful human control in the wider loop of the targeting process (the decision-making process) do not yet exist. It is considered unlikely that states would consciously choose to develop or commission such systems, as states want to retain control over their weapons. Even if it became technologically feasible, there seems to be no reason why a state would have the ambition to develop a weapon system that is intrinsically not under human control.

11. The Netherlands outright rejects the development and subsequent deployment of such fully autonomous weapon systems, but does currently not support a moratorium on the development of fully autonomous weapon systems. Such a regulatory framework would be unfeasible given the intrinsic dual-use nature of artificial intelligence technology. The question very quickly becomes: a moratorium on what?

Future deployment of autonomous weapon systems under meaningful human control

12. Autonomous weapon systems under meaningful human control may have key military advantages. For example, computers often respond faster and more accurately than humans, which may reduce risks to friendly units and the civilian population. These systems are often also able to operate in environments that are dangerous to humans, or difficult to reach. It is therefore to be expected that such weapon systems will be developed around the world over the next few decades and deployed for offensive and defensive tasks.

13. Without question, deployment of such systems always needs to be under meaningful human control in the wider loop of the decision-making process. It is therefore not to be expected that autonomous weapon systems will entirely or substantially take over the role of humans on the battlefield. The nature of modern conflicts, which often take place in predominantly civilian areas, complicates the deployment of these weapon systems. It is likely that autonomous weapon systems under meaningful human control will be deployed for specific tasks alongside military personnel and will complement existing weapon systems and other military and civilian technology.

Aspects of international law

14. International law, in particular international humanitarian law, fully applies to autonomous weapons systems. It is the state's responsibility to ensure that the deployment of any weapon system complies with the requirements of international law.

15. As long as autonomous weapon systems remain under meaningful human control – within the wider targeting process – there is no reason to assume that by definition these weapons fall into one of the categories of weapons that are banned under international (humanitarian) law. Ultimately, the responsibility for their deployment remains with humans.

Legal weapon reviews

16. For most states, weapon reviews are compulsory based on Article 36 of Additional Protocol I to the Geneva Conventions, which obliges States Parties involved in the development or acquisition of new means and methods of warfare to determine whether they are permitted under international law. The Netherlands is of the opinion that (1) the implementation of Article 36 procedures should be promoted at the national level, (2) the concept of meaningful human control should play an important role within the Article 36 review and that (3) greater transparency concerning the outcomes of these procedures and more international information/best practices sharing is required. Areas for information exchange could include: legal challenges during design and testing (in a realistic environment) of autonomous weapon systems, and the use of the concept of meaningful human control within the weapon review process.

Legal accountability

17. In the Netherlands' view, there is no (legal) accountability gap as long as humans exercise meaningful human control in the wider loop of the decision-making process for deploying autonomous weapon systems. Under such conditions, the existing legal regime is adequate to hold offenders accountable, as there is no change in the accountability of commanders, subordinates or those in positions of political or administrative responsibility who make the decisions. Likewise, state responsibility remains unchanged in the event of deployment of autonomous weapon systems under meaningful human control.
